Response To Pre-Bid Queries			
Bid Number: GEM/2021/B/1544869 Dated: 29-09-2021			
Linear Accelerator			
Tender Para	**TENDER SPECIFICATION**	**RESPRESENTATION RECEIVED FROM THE FIRMS**	**COMMITTEE RECOMMENDATION**
	4D CT simulator	a Radiotherapy dedicated 4D CT Simulator (Broad Bore) is being asked but no technical specification is there and also nothing is mentioned on the Turnkey, like, electrical, civil, plumbing, air-conditioning, furniture, etc. Hope the Turnkey portion will be addressed by the tendering authority directly and nothing is related to this tender. We would kindly request you to include the following details in order to participate in the tender and clarify on the above two points as mentioned above on the CT Simulator and Turnkey.	1.CT Simulator Spec given in Annecture-I 2.Turnkey detail Added in (Annexure -2) The prospective bidder shall inspect the praposal site for High-Energy LINAC at each of the NSCB Jabalpur and GRMC Gwalior before submission of the tendor
Page 1 Point 1	**RF Power source** Klystron	Pl amend to "Klystron or Magnetron". Klystron as RE Source is vendors specific, and we request you to make it neutral so that both the vendors can participate in the tender. As each vendors have its own RF Source which is very specific to the system and	Klystron or Magnetron
		Klystron or Magnetron	
Page 1 Point 1	**Electron Gun** Sealed	Pl amend to "Sealed or Unsealed". Sealed Electron Gun is vendors specific, and we request you to make it neutral so that both the vendors can participate in the tender.	Electron Gun- Sealed or Unsealed
Page 2 Point 1	**Collimator** Dynamic/Virtual Wedge	Dynamic/Virtual Wedge is vendors specific, and we request you to make it neutral so that both the vendors can participate in the tender. We request you to kindly amend the same as: "Dynamic/Motorised/Virtual Wedge.	Collimator- Dynamic/Motorised/Virtual Wedge.
		Dynnamic/virtual wedge/mptorized wedge	
Page 2 Point 1	**Multi-leaf Collimator** No.of Physical Leaves:120 and above (independent drives) Leaf width at iso-center : 5mm For SRS ans SRT Leaf width at iso ceter 3 mm (additional MLC	3mm additional MLC system is being asked, we are not providing add-on MLC system, instead we can provide integrated 2.5mm resolution (HD MLC) for SRS, SBRT treatments (with the field size of 40x22cm), or if you require the 40x40cm field size, we can then offer our Millennium MLC system with 5mm resolution.	MLC- Add-on OR inbuild . Lianc shall have Max field size at least 40x40; - 2.5 or 3 mm MLC width at iso. for SRS/SRT;
		No of physical leaves; up to 100 (independent drivers)	
Page 2 Point 1	**Multi-leaf Collimator** For SRS ans SRT Leaf width at iso ceter 3 mm (additional MLC system) is required	This specification is vendors specific, and we request you to make it neutral so that both the vendors can participate in the tender. Please amend to "For SRS and SRT leaf Width at isocenter 5mm or less or 1 mm with virtual MLC size is required"	For SRS ans SRT Leaf width of 2.5 mm or 3 mm at isocentre

Page 2 Point 1	**Multi-leaf Collimator** Interface between MLC & Existing Network System	Please define /clarify which are existing network system?	The vendor shall provide compatible interface between micro MLC and the network system of routine plan delivery system for IMRT/VMAT/3DCRT etc.
Page 3 Point 4	**Treatment Planning System and Simulator :** Capable of doing 3DCRT, IMRT, IGRT, VMAT (or RAPID ARC) SRS,SRT and 4D planning	4D planning is being asked, we need more information on thiswhether the Prospective and Retrospective Respiratory Gating system, Gated CBCT, 4DCBCT, Gated Treatments are required or not.	**Treatment Planning System and Simulator :** Capable of doing 3DCRT, IMRT, IGRT, VMAT (or RAPID ARC) SRS,SRT and 4D planning with prospective and retrospective Respiratory Gating system, Gated CBCT, 4DCBCT, Gated Treatments are required
Page 4 Point 5	**Oncology Information System** Network Record and Verify System Transfer of all parameters from Simulator & Treatment Planning System:Enabled		**Oncology Information System for each linear accelerator.** Network Record and Verify System Transfer of all parameters from Simulator & Treatment Planning System:Enabled- The vendor shall provide a comprehensive oncology information &image management and treatment record &verify system. The system shall assist in the integration of radiotherapy patient data throughout the entire department which includes treatment planning systems, linear accelerators, CT-Simulator, imaging units in the institute. It shall also record and verify treatment parameters of patients undergoing treatment. The system shall provide the following functions: Record and Review Patient Diagnoses; capable of recording the diagnosis as per the ICD C and ICD 10 system and complete ICD C and ICD 10 codes should be available in the system without requiring extra input, Plan a course of treatment in advance so that treatments are readily delivered when the patient arrives; Write RT prescriptions that detail treatment techniques, fractions, and dose; Define treatment fields; Link setup fields and notes to treatment fields; Setup notes should include photos that show how to set up the patient; Track dose to specific sites; Define site breakpoints with instructions that appear when the breakpoint will be exceeded; Store treatment plan information to avoid redundant and time-consuming data entry.
Page 4 Point 5	**Oncology Information System** All required interface for networking with existing network systems	Please provide the details of the existing network systems, not clear.	**Oncology Information System** All required interface, parts and software for networking.The platform shall hold all the information regarding treatment procedure, patient schedule and radiotherapy dose system. So, the workflow remains seamless. Oncology information system should help to improve the accessibility of information and lead to better use of cancer-related data
Page 4 Point 7	**Environmental requirements** All AERB clearances and environmental clearances	Please amend "All AERB clearances w.r.t equipment Type Approval has to be attached with bid however AERB clearance w.r.t site lay out approval of Linac bunker, import NOC to import equipment, commissioning licence, environmental clearance or any other regulatory clearance to install and start the equipment will be buyer's responsibility."	The repsonsibility AERB approvals and clearance shall be with the vendor. Support shall be provided by the consignee.

	Air Conditioning with proper filtration (heap filters) and monitoring of temperature and relative humidity	Please define detailed specification and BOQ of Air condition requirement. Also, temperature and Humidity control has to be monitored by buyer after due specifications are provided by supplier/bidder.	The area marked as radiotheray site/unit needs to be air-conditioned. Package Air Conditioners may be used according to room requirement and suitability. Humidity control should be provided to effectively eliminate moisture condensation on the equipment. The Air conditioning system should be designed with standby unit(s) to provide uniform air-conditioning 24 x 7. In the case of LINAC-CHILLER is placed indoors; the Air-conditioning system should be able to provide adequate ventilation and heat exchange for the same.The outdoor units of AC should have grill coverings to prevent theft and damage. Stand-alone Room Dehumidifiers of adequate capacity to be provided for LINAC Room, Console Room and TPS Room to ensure condensation- free atmosphere for the high value equipment. The Air conditioning of the LINAC treatment room shall have minimum 6 air changes per hour.Included Turnkey
	Note: In addition to above mentioned Linac set up, Radiotherapy dedicated 4D CT Simulator (Broad Bore) is mandatory	Please note Elekta does not manufacture 4D CT Simulator, so request you to remove this point and tender it separately excluding from Linac set up	Technical specification has been provided for CT Simulator Annexture-I

	Added Para:		1.Latest Version of software and Hardware & free upgradation till 10 year 2. Two week training in any good clinical setup in India for Team(2 Oncologist + 2 Physicisite) and additinal 2 weeks-onsite training. 3. If any Item/Items of the entire LINAC System Which is/are required for the full functioning of the equipment mentioned in specification ,but inadvertenty missed in specifying in the many terms.the same shall be supplied without additional cost by the L1 Vendor. 4.Two no of TPS Server with 128 GB or More RAM . There shal be at 10TB on Storage for plan storage in addition to OIS Storage 5. Networking of the all the system of raditaion oncology department like CT Simulator , LINAC and TPS Must be done 6. Chiller & Online UPS System
	Added Para:	Under collimeter page No 2 Para No 1.8	3.Read out Digital and Mechanical
	(Under Dosimetry system Page 3 Para no2	3D RF with rEQuierd calibrated ION Chamber compatible with electomete	3D RFA (size should not be less than 48x40x48 cm 3) with reuierd calibrated ion chamber compatible with electometer .
	Under Page 3 Treatment planning system and simulator	Minimum Two Photon does Calculated Algorithim One 2nd generation (e.g AAA) and 3rd generation algorithim (e.g. Acuros XB monte-carlo	Minimum Two Photon does Calculated Algorithim One 2nd generation (e.g AAA) and 3rd generation algorithim **(e.g. Acuros XB monte-carlo equivalent)**
	Page 3 Para 4 Treatment planning system and simulator	At least two planning system and at least three contouring station with 21" monitor	Two workstation for treatment planning system and four workstation for contouring with floating licence (21 inch monitor) Latest version for IMRT/IGRT/SRT, shall give free upgradation for 5 years.